

Joint Legislative  
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Pollution Control and  
Conservation  
Committee



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## The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman

Earlier this month, the Joint Conservation Committee accepted and published a report from a special task force on the problems of infiltration – the extraneous influx of water into wastewater (sewage) systems from the surrounding soil. The excess groundwater usually “infiltrates” the system through deteriorated pipes in old or already damaged wastewater systems. Because the flow of water occurs underground, it goes unnoticed by most people until aging systems break

down, back up, flood, collapse streets or cause contamination of nearby water resources because sewer pipes and treatment plants are overloaded. Sewer systems are designed to handle a certain flow level and when excess water enters in sufficient quantity, the system cannot do its job. The result is usually higher costs of operation, repair and replacement, contaminated water or both, which in turn has a negative impact on the health of communities and their potential for growth.

**Copies of the committee's infiltration task force report are available by calling the committee office at (717) 787-7570.**

Pursuant to House Resolution 376 of 1998, asking the committee to study the problems associated with infiltration and make recommendations to solve them, the task force was formed under the guidance of chairperson Rep. Julie Harhart (R-183rd). The task force was composed of representatives of industry, engineering firms, related authorities, associations and organizations, and state and municipal government.

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Craig D. Brooks, Director

Once again the issue of flow control is making the news. Past attempts to control the amount of waste entering states for disposal have failed. In 1994, the U.S. Supreme Court determined that flow control violated interstate commerce and was therefore unconstitutional (*C&A Carbone v. Town of Clarkstown*). Many states, including Pennsylvania, have urged Congress to pass legislation granting states reasonable authority to regulate commerce between states.

In August of last year, Pennsylvania Department of Environmental Protection (DEP) Secretary Dave Hess sent a clear message to federal lawmakers — Pennsylvania wants control of trash imports. Secretary Hess testified before the U.S. House Committee on Energy and Commerce in support of legislation that would give states the right to limit unwanted trash. The legislation, sponsored by Rep. Jim Greenwood, would allow communities to decide if they want to accept trash from other states and to control where the garbage goes.

Two New York counties may have succeeded, at least temporarily, to control waste flow where others have failed. In January 2002, the U.S. Supreme Court declined to review a federal appeals court ruling that allowed two New York counties to require all solid waste produced in the counties to be sent to specific, publicly owned facilities.



In the 1994 Carbone case, the U.S. Supreme Court struck down the practice of local governments mandating where to dump solid waste. However, the difference between the Supreme Court's decision in 1994 and the current case is that the Carbone case involved local officials directing waste to privately owned waste facilities.

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**In a New York case, a federal court has held that local regulations governing where waste should be processed are not discriminatory unless they favor local private interests over out-of-state interests.**

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In the current case, the federal appeals court found that the two New York counties were not in violation of the commerce clause because the local ordinances in question required waste to be directed to six county-owned facilities and, therefore, the business being favored was publicly owned.

The federal appeals court held that local regulations governing where waste should be processed are not discriminatory under the commerce clause unless they favor local private interests over the out-of-state interests. The court has determined that the local ordinances in the two New York counties are not discriminatory because they affect all private businesses negatively in favor of publicly owned facilities.

Now that the Supreme Court has declined to review the case, it will be up to the district court to rule whether the flow control regulations in the two counties are legal. A decision is not expected before summer.



# Research Briefs

Each month, the committee's staff researches and prepares a number of "briefs" on several topics relevant to the Joint Conservation Committee's mission. Very often, these briefs include references to reports and further research on the topics so that readers may pursue issues on their own.

## New York State's Efforts to Promote Zero-Emission Electric Vehicles Falling Short

— Tony M. Guerrieri, Research Analyst

In 1992, New York state adopted an aggressive automotive air pollution control program similar to one already in force in California. Called the Zero-Emission Vehicle program, it requires that 10 percent of new vehicles offered for sale in New York for model year 2003 be powered by zero-emission fuel. Battery equipped electric vehicles are currently the only commercially available technology that meets the zero-emission definition.

According to a report by the Office of the New York State Comptroller, it is unlikely that automakers will meet New York State's 10 percent requirement by 2003. The report, *"Clean Fueled Vehicle Council Staff Study: Acquisition, Use and Promotion of Electric Vehicles by New York State Agencies"*, also assesses the status of various state electric vehicle programs, and recommends steps for achieving better results.

Beginning in 1998, New York state agencies were instructed to facilitate the purchase of electric vehicles for appropriate applications in state fleets. The goal was to purchase 150 zero-emission electric vehicles every year. However, a review of state fleet vehicle purchasing histories for 1998 and 1999 shows that only 106 electric vehicles, not 300, were actually purchased. The report further noted that part of the reason state agencies were not able to purchase as many electric vehicles as they would have was that manufacturers limited the number of vehicles sold in the state.

According to the report, few electric vehicles are available in New York state and elsewhere in the North-

east because manufacturers are concerned about the vehicles' performance in cold weather, which reduces the range of electric vehicles. Heating and air conditioning systems, normally powered by the engine of a conventional gasoline vehicle, place a significant added strain on the batteries of electric vehicles, further reducing their range.

Although auto manufacturers are required to build and market zero-emission electric vehicles, the report examines the current market demand side of the equation, which essentially remains a free market. Between 1998 and 1999, only 214 electric vehicles were purchased in New York state by private and government fleet operators (including the state's 106). If at least 10 percent of the vehicles sold in New York State in 2003 are to be powered by electricity, an estimated 40,000 to 50,000 electric vehicles would need to be offered for sale in 2003.

The report cites a number of problems associated with zero-emission electric vehicles. The vehicles must be recharged frequently, have limited practicality, and can be difficult to get serviced or repaired. In addition, the price of a zero-emission electric vehicle is significantly higher - between \$7,400 and \$8,750 more - than that of a comparable vehicle powered by gasoline.

The report also examines the zero-emission efforts in other states. While California is the frontrunner in supporting and promoting electric vehicles, the report found that New York has acquired more of these vehicles than several neighboring states combined. California leads with 533 electric vehicles, followed by New York's 214, Massachusetts with 103, Pennsylvania's 45, and New Jersey with four.

The report recommends that the state improve its efforts to promote the use of electric vehicles among businesses and the general public, focusing especially on

increasing use in the New York City area, and making greater use of hybrid electric vehicles. The report concludes that continued and expanded participation by private sector fleet operators and other businesses is vital to the development of zero-fuel technologies and the infrastructure to support them.

Since the release of the Office of the Comptroller's report in late 2001, New York state enacted an alternative compliance program under the Zero-Emission Vehicle program. While the regulation still requires that at least 10 percent of the vehicles offered by major automakers be zero-emission vehicles, manufacturers can satisfy up to six percent of their zero-emission requirement with automobiles that, while not pure zero-emission vehicles, are clean enough to qualify for partial credits (e.g., compressed natural gas, hybrids). The other four percent must still be true zero-emission electric vehicles.

A copy of the report may be found at the Office of the New York State Comptroller's website at [www.osc.state.ny.us/audits/allaudits/093001/00d2.pdf](http://www.osc.state.ny.us/audits/allaudits/093001/00d2.pdf).

## GAO Report Summarizes Federal Water and Wastewater Infrastructure Grants

—Jason H. Gross, Research Analyst

The General Accounting Office (GAO), a department of the U.S. Congress, recently released a report entitled "*Water Infrastructure: Information on Federal and State Financial Assistance*," which seeks to clarify the federal government's position on water infrastructure development. The report serves as a summary of the numerous departments from which federal grant money is available for water and wastewater infrastructure.

According to the report, the U.S. drinking water and wastewater systems encompass thousands of treatment facilities, collection facilities and other public works. The investment into these water facilities has been enormous, but the report indicates that even more funds will be required in the future in order to support efforts to maintain clean and safe water. The estimated cost of repairing, replacing or upgrading aging facilities and meeting new water quality standards ranges from \$300 billion to \$1 trillion over the next 20 years. In an effort

to satisfy the national need for water and wastewater improvement, the federal government has established numerous sources of federal funding.

User rates, the report states, currently serve as the major source of facility financing. Assisting in the financing effort are federal and state government financial support systems. Many of the federal dollars used in supporting water infrastructure come from the Environmental Protection Agency (EPA). The EPA, from matching funds equal to 20 percent of the grants money, makes loans to local communities and water facilities. As the loans are repaid, the state's revolving loan funds are replenished. The EPA, however, is not the only source of federal grant money available to water and wastewater infrastructure.

The report's historical summary of information on the financial support that the many federal and state agencies have provided for water infrastructure improvements covers fiscal years 1991-2000. During that time, nine federal agencies made \$44 billion dollars available in various forms, for drinking water and wastewater capital improvements. EPA, the U.S. Department of Agriculture (USDA), and the departments of Housing and Urban Development (HUD) and Commerce accounted for 98 percent of the total.

The report provides general guidelines that federal programs use in deciding what projects receive grants. Projects which most closely meet these criteria are more likely to receive the needed federal funds:

- projects address the most serious risk to human health;
- projects are necessary to ensure compliance with Safe Drinking Water Act requirements;
- projects will assist systems most in need on a per household basis according to state "affordability" criteria.

States which wish to use federal matching funds must also create their own hierarchy for establishing priority amongst various state projects.

Besides the larger pools of federal dollars, five other federal agencies provided over \$1 billion in combined federal assistance dollars. The Appalachian Regional Commission provided \$271 million in grant projects within the region. The Federal Emergency Management Agency provided \$45.5 million for drinking and wastewater infrastructure under its Hazard Mitigation Grants program designed to implement measures that permanently reduce or eliminate future damages from natural hazards. The Small Business Administration granted \$27.6 million in loans in a program designed for small

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businesses that cannot obtain financing in the private marketplace but can demonstrate the ability to repay. Those loans must be used to construct, expand, or convert water and wastewater infrastructure.

The GAO report, GAO-02-134, is available by writing to the GAO, P.O. Box 37050, Washington DC 20013 or by calling 202-512-6000.

## Solid Waste Management is Big Business

— Tony M. Guerrieri, Research Analyst

**H**ow big is the solid waste industry? According to an article in the December 2001 issue of **Waste Age** magazine, solid waste management has a large presence in and is a significant contributor to the national economy.

The article, "*The U.S. Solid Waste Industry: How Big is It?*", states an estimated 27,000 organizations (publicly traded companies, privately held companies, and public sector) were operating in the U.S. solid waste management industry in 1999. Almost 56 percent of these entities were in the public sector. Of the remainder, 44 percent were privately held companies, while only 0.2 percent were companies publicly traded on the stock market.

Solid waste organizations were further segmented into hauling operations and solid waste facilities. Of the 27,000 organizations in the industry, approximately 15,500 (57 percent) provided collection and hauling services only, and did not own or operate any facilities that dispose of or process solid waste. The remaining 11,500 organizations (43 percent) operated an estimated 15,700 solid waste management facilities, including landfills, incinerators, material recycling facilities and transfer stations. The private sector owned 53 percent of the solid waste facilities and the public sector owned 47 percent.

The waste industry employed approximately 367,800 people. Total employee compensation, including benefits, was estimated at \$10 billion. Based on these figures, employees in the solid waste industry were paid an average of \$27,200 per year, including benefits.

The solid waste industry generated an estimated \$43.3 billion in revenues in 1999, with private sector waste management companies generating approximately 76 percent of that (\$33 billion).

An estimated 545 million tons of solid waste were processed in the United States in 1999. Of that total, about 374 million tons (68 percent) were landfilled; 31 million tons (five percent) incinerated; and 140 million tons (27 percent) recycled.

To manage this amount of waste, the industry used 206,300 pieces of motorized equipment. This included approximately 147,900 vehicles dedicated to the collection and transfer of solid waste. The remainder of the vehicles included other mobile equipment, stationary and mobile compaction equipment, and other processing equipment.

The waste management industry's direct effects in employment and sales generated \$10 billion in personal income. Taking into account all direct, indirect, and induced effects, the industry had a total economic effect on the U.S. economy of 948,000 jobs, \$29 billion in personal income, and \$96.5 billion in annual sales.

In the **Waste Age** article, solid waste is defined as any non-hazardous waste sent off-site for final disposal, incineration, recycling or composting. Non-hazardous waste included household waste; commercial waste; special waste; construction and demolition debris; regulated medical waste; yard waste; sludge; and scrap tires.

The article concludes that the solid waste industry provides employment opportunities for a large number of the nation's workforce; stimulates economic activity and jobs through its operation of thousands of large and small processing facilities; and stimulates the economy by purchasing tens of thousands of large pieces of motorized equipment and machinery.

### News to Use in the *Environmental Synopsis*... share it with a friend

The *Environmental Synopsis* is issued monthly.

The newsletter examines timely issues concerning environmental protection and natural resources.

If you or someone you know would like to receive a copy of the *Synopsis* each month, please contact the committee office at 717-787-7570.



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## Report Examines Leading Environmental Indicators

—Jason H. Gross, Research Analyst

The Pacific Research Institute has released its sixth edition of the report entitled “*Index of Leading Environmental Indicators*”. The report provides policymakers with an annual account of key environmental trends within the borders of the United States. The primary mission of the institute is to study the sources of long-term trends in environmental quality and explore how markets, property rights, and local variables can improve environmental conditions.

According to the report, the improvement in air quality is the single greatest environmental success in recent U.S. history. This finding does not imply that the Clean Air Act has served its purpose and can be dismantled, however. In fact, several major urban areas still have relatively unhealthy air quality. Still, large numbers of urban centers have experienced improvement such that their “non-attainment” EPA air quality status is no longer an issue.

The report monitored local ozone levels as a determining factor in arriving at its air quality findings. According to the report, in 92 major metropolitan areas measured in the Commonwealth of Pennsylvania, the number of unhealthful days dropped significantly from 1791 in 1990 to 248 in 2000, which compares favorably to other states.

According to the report, water quality is the next most important environmental asset besides air quality. The report cites the lack of reliable, systematic measurements of water quality trends as the culprit in the lack of good data. The report further avers that measuring water quality is more difficult than determining air quality.

The problem arises from the seasonal variations, variety of water conditions, and lack of a reliable means of measurement. Only partial snapshots of national water quality are available through the EPA and the U.S. Geological Network. The limited data that is available assesses streams, rivers, lakes, and marine estuaries. Only 23 percent of the total miles of waterways were assessed. This lack of data makes it difficult to generalize to all waterways.

According to the trend data, 50 percent of the waterways are stable, around 20 percent are improving, and around 10 percent are degrading (the remainder cannot be determined). The report states that 48 percent of Pennsylvania’s estuaries, 65 percent of its lakes, and 46 percent of the rivers are good. Pennsylvania’s trends are similar to the national average, where 53 percent of all waterways are good and 47 percent are impaired. However, it should be noted that the national average is far from ideal and much improvement must be made in order to guarantee the future of our waterways.

Another category of study by the report is the toxin and pesticide release inventory. Measurements developed by EPA are the leading national yardsticks by which measurement of toxic substances are taken each year, according to the report, which tracks releases of more than 600 chemicals that have a variety of hazardous affects. According to the report, the chemical industry itself has shown the largest decrease of all industries, showing a 65 percent reduction in all releases since 1988.

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**The report found that the number of unhealthful days in 92 major metropolitan areas in Pennsylvania dropped significantly from 1,791 in 1990 to 248 in 2000.**

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The reduction in toxin production is a result of productivity gains and technological improvements in the chemical industry, which makes it an environmentally safer industry. According to the report, the data is imperfect because the statistics provided by the EPA lump all toxic releases together, only measuring them by the pound. However, the numbers are indicative of an overall reduction in the use of chemicals, which is occurring even as total industrial output has increased. Nationally, the toxic release has decreased from 3.38 billion pounds in 1988 down to 1.85 billion pounds in 1998. Pennsylvania has reduced its poundage of released toxins from approximately 140 million pounds in 1988 to 90 million in 1998, a rate in line with the national average.

Further information regarding this report can be obtained through the Pacific Research Institute for Public Policy, 755 Sansone St, Suite 450, San Francisco CA 92111, by calling 415-989-0833, or e-mailing [pripp@pacificresearch.org](mailto:pripp@pacificresearch.org).

# On The Horizon...

## a look at upcoming committee events

- ▶ **Thursday, March 14, 10 a.m., State College – Forestry Task Force meeting.**
- ▶ **Monday, March 18, 12 noon, Hearing Room 1, North Office Bldg., Capitol Complex - Environmental Issues Forum.** Andrew M. “Andy” Loza, executive director of the Pennsylvania Land Trust Association, will discuss the association’s plans, priorities and agenda.
- ▶ **Thursday, March 21, 10 a.m., Tredyffrin Township Building, Chester County -** Public hearing on reauthorization of the state’s recycling fee.
- ▶ **Thursday, April 11, 10 a.m., McKee’s Rocks Borough Building, Allegheny County -** Public hearing on reauthorization of the state’s recycling fee.
- ▶ **Friday, April 12 - Alternative Energy Tours.** The committee will visit the Siemens facility in Pittsburgh to see a demonstration of fuel cell technology and pay a call on the wind farm in Somerset, PA.
- ▶ **Monday, April 15, 12 noon, Hearing Room 1, North Office Bldg., Capitol Complex - Environmental Issues Forum.** DEP Deputy Secretary Robert Barkanic will discuss the department’s Environmental Futures Planning process.

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## Committee Chronicles...

### a review of some memorable committee events

Committee staff joined Rep. Julie Harhart (R-183<sup>rd</sup>) on February 7 to help get out the message about the importance of reliable, efficient and cost-effective municipal wastewater treatment systems and educate citizens on the costs associated with such systems.



Committee Executive Director Craig Brooks and Research Analyst Tony Guerrieri were guests on Rep. Harhart’s cable TV program discussing that topic. The TV taping coincided with that day’s release of the committee’s report on *“Infiltration and Inflow”* (see The Chairman’s Corner on page 1). Rep. Harhart, a Joint Conservation Committee member, chaired the special task force looking into the statewide problems caused by infiltration and inflow for wastewater systems. The task force report contained 12 recommendations to address these problems.



In the top photo, joining Rep. Harhart (left), Brooks (far right), and Guerrieri (2<sup>nd</sup> from right), were task force member and Slatington Borough Engineer Ted Stevenson (2<sup>nd</sup> from left) and local citizen George Dilliard, who served on the Slatington Borough Authority for 25 years and was its chairman for 15 years. Slatington is an example of an efficient and cost-effective system and a tour of the borough’s sewer plant followed the taping – and some informal discussions with Rep. Harhart (see photo below).

This working group held a series of meetings and in-depth discussions, focusing on four specific areas: long-term financing strategies; asset management; uniform construction codes; and rehabilitation of service laterals (the sections of pipe running from individual homes to the hook-up with the sewer main at the street curb).

The report makes 12 recommendations to address infiltration problems. The recommendations are aimed at utilities, municipal government, state government and the federal government, with each having different facets of the larger issue to address.

While infiltration has not been a “front page” problem, its seriousness is reflected in testimony offered to the committee by the state Department of Environmental Protection (DEP). DEP’s testimony indicated that there were 115 wastewater treatment facilities with existing overloads and 51 more projecting five-year overloads in Pennsylvania. Overloading is one of the problems that can be caused by infiltration as systems age and are not properly monitored and maintained. The problem is often compounded as communities seek to encourage growth, only to find that the sewer treatment plant cannot handle further increased volume.

Clearly, as sewage treatment systems, many already over 100 years old, continue to age, and infiltration increases as pipes deteriorate with age and wear, the problems I have mentioned above will increase for customers, operators, municipalities and utilities.

Turning to the report’s specific recommendations, wastewater utilities are urged to:

- incorporate asset management guidelines into their operations;
- regionalize wastewater systems in order to pool resources and reduce duplication of services;
- include capital assets maintenance and replacement costs so that rates reflect the full cost of services;
- work with DEP to increase awareness of the infiltration problem through public education programs.

Recommendations for local governments include:

- making better use of existing regulatory controls, such as ordinances requiring property owners to repair faulty laterals or remove direct sources of extraneous water inflow;
- improving inspection criteria for private laterals;
- establishing financial assistance programs to help homeowners with existing lateral repairs.

Among recommendations for state government are:

- having DEP implement minimum design specifications for the wastewater industry and possibly tying state funding to projects meeting the standards;
- having PENNVEST offer greater priority to rehabilitation of existing infrastructure in older communities;
- creating a Pennsylvania Infrastructure Advisory Board to target infrastructure investment toward high priority problems, and to examine alternative funding for wastewater projects, such as a “Clean Water Trust Fund” and lateral insurance programs.

The final recommendations, aimed at the federal government, include:

- significantly increasing funding for projects to repair, replace or rehabilitate wastewater infrastructure;
- strengthening wastewater research and development programs.

On behalf of the committee, I wish to thank Rep. Harhart for chairing the task force, the many busy individuals who work with such problems every day for taking the time and providing expertise to help formulate the report and its recommendations, and the committee staff for coordinating the entire project. Infiltration and the problems it causes are topics that should be of concern to all Pennsylvanians because they affect our homes, our health, our communities, our water resources and our economic growth.

This is the committee’s most recent study on water quality issues, others being water quality credits and trading, and the problem of combined sewer overflows (CSOs), which is closely related to infiltration. For copies of the reports on these issues, please contact the committee office at 717-787-7570.

## How to Contact The Joint Conservation Committee

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